

## General

### Title

Perinatal care: percentage of patients at risk of preterm delivery at greater than or equal to 24 and less than 34 weeks gestation receiving antenatal steroids prior to delivering preterm newborns.

### Source(s)

Specifications manual for Joint Commission national quality measures, version 2016A. Oakbrook Terrace (IL): The Joint Commission; Effective 2016 Jul 1. various p.

## Measure Domain

### Primary Measure Domain

Clinical Quality Measures: Process

### Secondary Measure Domain

Does not apply to this measure

## Brief Abstract

### Description

This measure is used to assess the percentage of patients at risk of preterm delivery at greater than or equal to 24 and less than 34 weeks gestation who receive antenatal steroids prior to delivery of a preterm newborn.

### Rationale

The National Institutes of Health (NIH) 1994 recommendation is to give a full course of corticosteroids to all pregnant women between 24 weeks and 34 weeks of gestation who are at risk of preterm delivery. Repeated corticosteroid courses should not be used routinely, because clinical trials show decreased brain size, decreased birth weight, and adrenal insufficiency in newborns exposed to repeated doses. Treatment should consist of two doses of 12 mg of betamethasone given intramuscularly 24 hours apart or four doses of 6 mg dexamethasone given intramuscularly every 12 hours.

A single course of corticosteroids should be given at 24 0/7 to 33 6/7 weeks gestation ("Antenatal

corticosteroids," 2000). A Cochrane meta-analysis reinforces the beneficial effect of this therapy regardless of membrane status and further concludes for all preterm deliveries the single course of corticosteroids should only be routinely administered (Roberts & Dalziel, 2006).

## Evidence for Rationale

Antenatal corticosteroids revisited: repeat courses. NIH Consens Statement Online. 2000 Aug 17-18;17(2):1-18.

NIH consensus development conference statement: the effect of corticosteroids for fetal maturation on perinatal outcomes. February 28 - March 2, 1994.

Roberts D, Dalziel S. Antenatal corticosteroids for accelerating fetal lung maturation for women at risk of preterm birth. Cochrane Database Syst Rev. 2006 Jul 19;3:CD004454. [69 references] [PubMed](#)

Specifications manual for Joint Commission national quality measures, version 2016A. Oakbrook Terrace (IL): The Joint Commission; Effective 2016 Jul 1. various p.

## Primary Health Components

Preterm delivery; antenatal steroids

## Denominator Description

Patients delivering live preterm newborns with greater than or equal to 24 and less than 34 weeks gestation completed (see the related "Denominator Inclusions/Exclusions" field)

## Numerator Description

Patients with antenatal steroids initiated prior to delivering preterm newborns (see the related "Numerator Inclusions/Exclusions" field)

## Evidence Supporting the Measure

### Type of Evidence Supporting the Criterion of Quality for the Measure

A clinical practice guideline or other peer-reviewed synthesis of the clinical research evidence

A formal consensus procedure, involving experts in relevant clinical, methodological, public health and organizational sciences

A systematic review of the clinical research literature (e.g., Cochrane Review)

### Additional Information Supporting Need for the Measure

- An updated systematic review by the Cochrane Collaboration analyzed 21 studies including 3885 women and 4269 infants. This review concluded that the reported use of antenatal corticosteroids resulted in significant reductions in neonatal death (RR 0.69), respiratory distress syndrome (RDS) (RR 0.66), intraventricular hemorrhage (IVH) (RR 0.54), necrotizing enterocolitis (NEC) (RR 0.46),

early onset infection (RR 0.56), and neonatal intensive care unit (NICU) admission (RR 0.80). There were no adverse maternal effects.

- RDS affects up to one fifth of low birth weight babies defined as less than 2500 grams, and extremely low birth weight babies defined as less than 1500 grams. This deadly illness that preterm babies commonly suffer from is the primary cause of early neonatal death and disability.
- The evidence from this new systematic review supports the continued use of a single course of antenatal corticosteroids to accelerate fetal lung maturation in women at risk of preterm birth. This evidence greatly supports the use of a single course of antenatal corticosteroids to be considered routine for preterm delivery with few exceptions.

## Evidence for Additional Information Supporting Need for the Measure

Roberts D, Dalziel SR. Antenatal corticosteroids for accelerating fetal lung maturation for women at risk of preterm birth (Review). 2010. (The Cochrane Collaboration; no. Issue 9).

## Extent of Measure Testing

Twenty-six contracted performance measurement systems (PMS) agreed to support the perinatal care measures. Joint Commission staff defined and developed a database structure for electronic receipt of measure data and a verification process was implemented to assure that measures were embedded into the measurement system's technical infrastructures and into their data collection tools in accord with Joint Commission specifications. Joint Commission staff also verified data collection tools and provided education regarding the performance measure set to PMS vendors, who in turn provided education and ongoing support to their contracted hospitals.

Once sufficient data to support this effort were received by The Joint Commission, a reliability assessment of the measures and individual data elements was conducted from October 2011 through January 2012. A data collection tool was developed to facilitate the reabstraction of selected medical records and assessment of the reliability of the data elements. Reliability test site visits were conducted by Joint Commission staff at a subset of 12 randomly-selected hospitals. Selection of the sites was based on multiple characteristics, including hospital demographics, bed size and type of facility.

In the course of the reliability site visits, electronic and paper medical records were blindly reabstracted by Joint Commission staff. Reabstracted data elements were then compared with the hospital's originally abstracted data on a data element to data element basis. Differences in abstraction were investigated and adjudicated in order to understand the reasons for any disparities. In addition, structured focus group discussions were held at each site to gather additional feedback on the measures. A resource evaluation was also completed by the site visit hospitals to assess the cost and time associated with data collection effort. Feedback from the focus group discussions has been incorporated into the measure.

## Evidence for Extent of Measure Testing

Domzalski K. (Associate Project Director, Division of Healthcare Quality Evaluation, Department of Quality Measurement, The Joint Commission, Oakbrook Terrace, IL). Personal communication. 2013 Sep 20.

## State of Use of the Measure

### State of Use

Current routine use

## Current Use

not defined yet

## Application of the Measure in its Current Use

### Measurement Setting

Hospital Inpatient

### Professionals Involved in Delivery of Health Services

not defined yet

### Least Aggregated Level of Services Delivery Addressed

Single Health Care Delivery or Public Health Organizations

### Statement of Acceptable Minimum Sample Size

Specified

### Target Population Age

8 years to 64 years

### Target Population Gender

Female (only)

## National Strategy for Quality Improvement in Health Care

### National Quality Strategy Aim

Better Care

### National Quality Strategy Priority

Health and Well-being of Communities  
Making Care Safer

## Institute of Medicine (IOM) National Health Care Quality

# Report Categories

## IOM Care Need

Staying Healthy

## IOM Domain

Safety

Timeliness

# Data Collection for the Measure

## Case Finding Period

Discharges July 1 through December 31

## Denominator Sampling Frame

Patients associated with provider

## Denominator (Index) Event or Characteristic

Clinical Condition

Institutionalization

Patient/Individual (Consumer) Characteristic

Therapeutic Intervention

## Denominator Time Window

not defined yet

## Denominator Inclusions/Exclusions

### Inclusions

Patients with *International Classification of Diseases, Tenth Revision, Procedure Code System (ICD-10-PCS) Principal Procedure Codes* or *ICD-10-PCS Other Procedure Codes* for delivery (as defined in the appendices of the original measure documentation) and delivering live preterm newborns with greater than or equal to 24 and less than 34 weeks gestation completed

### Exclusions

- Less than 8 years of age

- Greater than or equal to 65 years of age

- Length of Stay (LOS) greater than 120 days

- Documented *Reason for Not Initiating Antenatal Steroids* (as defined in the appendices of the original measure documentation)

*International Classification of Disease, Tenth Revision, Clinical Modification (ICD-10-CM) Principal Diagnosis Code or ICD-10-CM Other Diagnosis Codes for fetal demise (as defined in the appendices of the original measure documentation)*

Gestational age less than 24 or greater than or equal to 34 weeks or unable to determine (UTD)

## Exclusions/Exceptions

not defined yet

## Numerator Inclusions/Exclusions

### Inclusions

Patients with antenatal steroids initiated prior to delivering preterm newborns (as defined in the appendices of the original measure documentation)

### Exclusions

None

## Numerator Search Strategy

Institutionalization

## Data Source

Administrative clinical data

Paper medical record

## Type of Health State

Does not apply to this measure

## Instruments Used and/or Associated with the Measure

- Perinatal Care (PC) Initial Patient Population Algorithm Flowchart
- PC-03: Antenatal Steroids Flowchart

## Computation of the Measure

## Measure Specifies Disaggregation

Does not apply to this measure

## Scoring

Rate/Proportion

## Interpretation of Score

Desired value is a higher score

## Allowance for Patient or Population Factors

not defined yet

## Standard of Comparison

not defined yet

## Identifying Information

### Original Title

PC-03: Antenatal steroids.

### Measure Collection Name

National Quality Core Measures

### Measure Set Name

Perinatal Care

### Submitter

The Joint Commission - Health Care Accreditation Organization

### Developer

The Joint Commission - Health Care Accreditation Organization

### Funding Source(s)

No external funding was received.

### Composition of the Group that Developed the Measure

The Perinatal Care Technical Advisory Panel (PC TAP) recommended which National Quality Forum (NQF)-endorsed Perinatal Care measures should be included in the set. Members of the PC TAP are enumerated at: [http://www.jointcommission.org/assets/1/18/TAP\\_Members\\_Web\\_List.pdf](http://www.jointcommission.org/assets/1/18/TAP_Members_Web_List.pdf) .

### Financial Disclosures/Other Potential Conflicts of Interest

Expert panel members have made full disclosure of relevant financial and conflict of interest information in accordance with National Quality Forum (NQF) and The Joint Commission's Conflict of Interest policies, copies of which are available upon written request to The Joint Commission.

## Endorser

National Quality Forum - None

## NQF Number

not defined yet

## Date of Endorsement

2015 Apr 21

## Core Quality Measures

Obstetrics and Gynecology

## Adaptation

This Perinatal Care measure has been adapted from the following National Quality Forum (NQF)-endorsed measure:

Appropriate Use of Antenatal Steroids [Providence St. Vincent's Hospital/Council of Women and Infant's Specialty Hospitals]

## Date of Most Current Version in NQMC

2016 Jul

## Measure Maintenance

Every six months

## Date of Next Anticipated Revision

Unspecified

## Measure Status

This is the current release of the measure.

This measure updates a previous version: Specifications manual for Joint Commission national quality core measures, version 2015B. Oakbrook Terrace (IL): The Joint Commission; Effective 2015 Oct 1. 327 p.

## Measure Availability

Source available from [The Joint Commission Web site](#) .

For more information, contact The Joint Commission at One Renaissance Blvd., Oakbrook Terrace, IL 60181; Phone: 630-792-5800; Fax: 630-792-5005; Web site: [www.jointcommission.org](http://www.jointcommission.org)

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## NQMC Status

This NQMC summary was completed by The Joint Commission on January 15, 2010 and reviewed accordingly by ECRI Institute on February 8, 2010.

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## Production

### Source(s)

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